

Application Serial No: 10/530,725
Responsive to the Office Action mailed on: October 24, 2007

REMARKS

This Amendment is in response to the Office Action mailed on October 24, 2007. Claims 1, 3, 6, 7 and 10 are amended. Claims 1 and 6 are amended editorially and are supported, for example, in the specification on page 15, line 25-page 16, line 4. Claim 3 is amended to correct a minor typo. Claims 7 and 10 are amended editorially and are supported, for example, in Figure 1. Claims 14-18 are cancelled without prejudice or disclaimer. No new matter is added. Claims 1-13 are pending.

§112, First and Second Paragraph:

Claims 1-13 are rejected as failing to comply with the written description requirement and as being indefinite. In particular, the rejections assert that the feature of "the response from the reference board varies continuously with varying wavelength" is non supported in the specification and therefore constitutes new matter. This rejection is traversed. The feature of "the response from the reference board varies continuously with varying wavelength" is clearly supported by Figure 4, wherein the reflectivity (response from the reference board) is shown to vary continuously as the wavelength of the irradiated light varies. Thus, an accurate optical measurement as to the concentration of a specific component in a sample liquid can be obtained even if the wavelength of light irradiated onto a reaction system deviates from an intended value (see page 3, line 24-page 4, line 1). Withdrawal of these rejections is requested.

Claims 7 and 10-12 are rejected as being indefinite. In particular, the rejection asserts that claims are incomplete for omitting essential structural cooperative relationships of elements. Claims 7 and 10 are amended to explicitly recite the structural relationships between the detecting unit and the calculator and between the calculator and the storage. Accordingly, this rejection is now moot. Withdrawal of this rejection is requested.

§102 Rejections:

Claims 1-13 are rejected as being anticipated by Matzinger (US Patent No. 5,780,304). This rejection is traversed.

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Claim 1 is directed to an analyzing method that requires, inter alia, a second detection step for irradiating light onto a reference board to detect a response from the reference board as a second detection result, the response from the reference board varying continuously with varying wavelength of the irradiated light. Claim 1 also requires a calculation step for calculating a concentration of a specific component in the sample liquid based on the first and second detection results by making a correction to account for fluctuations of measurement wavelength of the irradiated light. An advantage of these features is that an accurate optical measurement of the concentration of a specific component in a sample liquid can be obtained even if the wavelength of the light irradiated onto a reaction system deviates from an intended value.

Matzinger does not disclose or suggest these features. In Matzinger, adjustment is made so that each of different measuring apparatuses provides a proper quantity of light energy (i.e., intensity of light) of each LED that is designed to emit light at a fixed wavelength of 660 nm or 940 nm (see column 11, lines 16-18 and column 12, lines 25-56). Matzinger also includes a gray target (45) and a standard zone (60). However, the gray target (45) is not dependent on wavelength. The standard zone (60) only provides a higher reflectance than a reaction zone, and no wavelength dependence of the standard zone (60) is used for measurement correction (see column 9, line 66-page 10, line 21). Thus, any adjustment or correction made to the method is based on the assumption that each LED emits light at a fixed wavelength. Accordingly, nowhere does Matzinger disclose or suggest a second detection step for irradiating light onto a reference board to detect a response from the reference board as a second detection result, the response from the reference board varying continuously with varying wavelength of the irradiated light. Also, nowhere does Matzinger disclose or suggest a calculation step for calculating a concentration of a specific component in the sample liquid based on the first and second detection results by making a correction to account for fluctuations of measurement wavelength of the irradiated light. For at least these reasons claim 1 is not suggested by Matzinger. Claims 2-5 depend from claim 1 and should be allowed for at least the same reasons.

Claim 6 is directed to an analyzing device that requires, among other features, a detecting unit arranged to face the reaction system and the reference board for detecting a

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first response from the reaction system under light irradiation from the light irradiator, the detecting unit detecting a second response from the reference board under light irradiation from the light irradiator, the second response from the reference board varying continuously with varying wavelength of the irradiated light. Claim 6 also requires a calculator connected to the detecting unit for calculating a concentration of a specific component in the sample liquid based on the first and second responses by making a correction to account for fluctuations of measurement wavelength of the irradiated light.

Matzinger does not disclose or suggest these features. As discussed above, in Matzinger, adjustment is made so that each of different measuring apparatuses provides a proper quantity of light energy (i.e., intensity of light) of each LED which is designed to emit light at a fixed wavelength of 660 nm or 940 nm (see column 11, lines 16-18 and column 12, lines 25-56). Matzinger also includes a gray target (45) and a standard zone (60). However, the gray target (45) is not dependent on wavelength. The standard zone (60) only provides a higher reflectance than a reaction zone, and no wavelength dependence of the standard zone (60) is used for measurement correction (see column 9, line 66-page 10, line 21). Thus, any adjustment or correction made to the method is based on the assumption that each LED emits light at a fixed wavelength. Accordingly, nowhere does Matzinger disclose or suggest a detecting unit that detects a second response from the reference board under light irradiation from the light irradiator, the second response from the reference board varies continuously with varying wavelength of the irradiated light. Also, nowhere does Matzinger disclose or suggest a calculator connected to the detecting unit for calculating a concentration of a specific component in the sample liquid based on the first and second responses by making a correction to account for fluctuations of measurement wavelength of the irradiated light. For at least these reasons claim 6 is not suggested by Matzinger. Claims 6-13 depend from claim 6 and should be allowed for at least the same reasons.

Conclusion:

Applicant respectfully asserts that claims 1-13 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this

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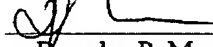
communication, please contact Applicant's primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.



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Respectfully submitted,

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